

ments in the manual on our bookshelf about the species of *Quercus* or *Eupatorium*, having confidence in its author, but we would probably arrive at a different conclusion if we gave these groups long and patient study ourselves. That is how Brainerd was able to improve our knowledge of *Viola*, how Sargent gave us new ideas on *Crataegus*; how Bicknell increased the southern species of *Sisyrinchium* to 53; how Small reduced them to fifteen. Whether all these new species of *Amsinckia* will be maintained is a different question, but if they are reduced, their reduction will again be an expression of opinion based on careful study.

In conclusion, let me give a definition which may make one more lenient in criticizing Suksdorf's work or any other similar study. A species is a group of one or more individuals which in your opinion deserves a binomial name.

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FIELD TRIPS OF THE CLUB

LICHEN OBSERVATIONS ON WINTER WALKS OF THE CLUB

Winter field meetings of the Torrey Botanical Club, in February and March, brought out a good attendance in spite of weather varying from moderate and sunny to snow and sleet. On these trips the study of lichens proved interesting not only for themselves, but because the usual subjects for observation in the flowering season were absent. Most members and guests showed keen interest in these plants, which might take a place in outdoor nature study on a par with higher organisms if there was a popular guide for them, which, the chairman hopes, the Club may be able to publish.

On Sunday, Feb. 12, a party of 28, led by the chairman of the field committee, rambled in the Bear Mountain State Park, including the granite knobs in the meadow at Iona Island, where the prickly pear cactus colonies were seen; Doodletown Brook and Valley, and the west end of Dunderberg Mountain. In the brook, objects of interest were the aquatic lichen, *Dermatocarpon miniatum aquaticum*, growing on the stones among liverworts (*Conocephallum* and *Pellia*) and three plants of the Maidenhair Spleenwort, *Asplenium Trichomanes*, growing on a band of Grenville limestone within the gneiss.

In the woods along the south side of Doodletown Valley, several *Cladonias* were found, *C. cristatella*, formae *Beauvoisii*, *squamosissima* and *vestita*; *C. coniocraea*, *C. chlorophaea*, formae *simplex*, *pterygota*, *carpophora* and *homodactyla*, and *C. strepsilis*, forma *coralloides*. *Peltigera canina* was found in a large colony near the foot of Dunderberg. On the summit *Cladonia alpestris* and *Parmelia conspersa* were common. Returning to Bear Mountain, in an old field on the northern edge of Doodletown valley, a rich collection of lichens was found, including *Baeomyces roseus*, *Cladonia verticillata*, forma *apoticata*; *C. subcariosa*, and unusually large cups of *C. chlorophaea*, formae *simplex* and *carpophora*.

On Feb. 29, the party led by Dr. Arthur H. Graves, of the Brooklyn Botanic Garden, numbering 20, first visited the remarkable colony of Southern Bald Cypress, *Taxodium distichum*, in the cattail meadow, at Manitou station. A closer search revealed a larger number of specimens than have been reported before, the total, large and small being sixteen, from about ten to fifty years old. Their location seemed to make any explanation as to artificial planting improbable, except possibly the three oldest ones, and if they were planted, no one in the village seems to know anything about it. The colony is obviously increasing naturally, and nearly every individual is thrifty, although 200 miles north of the nearest large natural occurrence, in the Chesapeake Bay region.

Lichens found on this trip, which included the old iron pyrite mine on the back of Anthony's Nose, and the valley of Broccy Kill in the National Guard camp area, were *Baeomyces roseus*, in very pretty densely fruited masses, several common *Cladonias*, and two rarer ones, which seemed to be *Cladonia coccifera*, and the form *asotea*, with central, red-fruited proliferations.

On March 7 the trip was led by Miss Margaret A. Griffin, of the Eastside High School, Paterson, N. J. The fifteen members started from the city in a light rain, which by the time they reached the beginning of the walk, at Franklin Lake, had turned to snow. Before they finished it was a northeast sleet and rain storm. Before the snow covered everything, a few lichens were found, including many fine large thalli of *Lecidea albo-caerulensis*, with numerous apothecia, on the small columns

of basalt at the north end of Franklin Clove; the silvery-gray thalli appearing very conspicuously against the dark rock. An unusual *Cladonia* was *C. clavulifera*, forma *subfastigiata*.

But the principal objectives of Miss Griffin's trip were: a stand of about thirty persimmons, *Diospyros virginiana*, on the edge of a swamp south of the Clove, which must be about the most northern stand of the species; unusual forms of *Lycopodium complanatum*, varieties *flabelliforme*, and *chamaecyparisus*, as well as *L. lucidulum*, *L. obscurum*, var. *dendroideum* and *L. clavatum*; and, most interesting of all, several thriving colonies of *Camptosorus rhizophyllus*, growing on a talus of broken small columns of the basalt rock of the Preakness-Packanack Mountains area. This was the first time the writer has seen the Walking Fern growing elsewhere than on limestone or sandstone with a high lime content. But there is considerable calcium in the Watchung basalts, as is evidenced by the formation of the numerous zeolites, including secondary crystals, of calcite, crevices in this rock. It may be that enough calcium leaches out of the ledges of small-columned basalt, above this talus, to produce a soil condition to encourage the establishment of *Camptosorus*. The fern seems to be as large and as well fruited as on its more usual limestone haunts.

The stand of southern white cedar, *Chamaecyparis thyoides* at the southwest corner of Franklin Lake, is interesting as one of the inland stands of the species in northern New Jersey, and would repay further study for possible associated plants of interest, on another day when it is not so wintry.

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